IN THE CLAIMS

1. (Currently Amended) A method for dynamically adjusting reserved bandwidth in a data communications device while transporting a session of data communication within the device, the method comprising the steps of:

establishing a first bandwidth reservation associated with a session of data communication in the data communications device;

transporting, through the data communication device, application data associated with the session of data communication utilizing data storage locations associated with the first bandwidth reservation;

receiving bandwidth allocation adjustment information, within a bandwidth reservation request, during the session of data communication; and

dynamically adjusting the first bandwidth reservation to produce a second bandwidth reservation, wherein the data communications device uses an RSVP protocol to determine an amount of bandwidth to reserve, for application data of the session of data communication in accordance with the bandwidth allocation adjustment information within the bandwidth reservation request while continually maintaining the session of data communication.

2. (Previously Amended) The method of claim 1 wherein the step of establishing a first bandwidth reservation includes the steps of:

accepting a first bandwidth reservation request indicating a first amount of bandwidth to reserve for the session of data communication in the data communications device; and

labeling, with an identity of the session of data communication, a first percentage of available data storage locations used to store application data transported through the data communications device thus establishing the first bandwidth reservation, wherein the first percentage of storage locations labeled is based upon the first amount of bandwidth requested as indicated in the first bandwidth reservation request.

3. (Original) The method of claim 2 wherein, after the step of accepting a first bandwidth reservation request, the step of establishing a first bandwidth reservation further includes the step of:

calculating and storing a first percentage of total device bandwidth to allocate to the session of data communication based upon the first bandwidth reservation request; and

wherein the first percentage of data storage locations labeled in the step of labeling is based upon the calculated first percentage of total device bandwidth to allocate to the session of data communication.

4. (Original) The method of claim 3 wherein the step of calculating and storing, stores the calculated first percentage in a resource allocation table which is independently accessible by the step of labeling and the step of dynamically adjusting, so as to allow the step of dynamically adjusting to alter the calculated percentage in the resource allocation table without disrupting the step of labeling, thus allowing the bandwidth reservation in the device to be adjusted without effecting operation of the step of transporting.

5. (Original) The method of claim 2 wherein the step of dynamically adjusting the first bandwidth reservation to produce a second bandwidth reservation includes the steps of:

accepting a second bandwidth reservation request indicating a second amount of bandwidth to reserve for the session of data communication;

labeling, with an identity of the session of data communication, a second percentage of available data storage locations used to store data transported through the data communications device thus establishing the second bandwidth reservation, wherein the second percentage of storage locations labeled is based upon the second amount of bandwidth requested as indicated in the second bandwidth reservation request; and

wherein the second percentage of storage locations labeled is different than the first percentage of storage locations labeled.

6. (Original) The method of claim 5 wherein, after the step of dynamically adjusting the first bandwidth reservation to produce a second bandwidth reservation further includes the step of:

calculating and storing a second percentage of total device bandwidth to allocate to the session of data communication based upon the second bandwidth reservation request; and

wherein the second percentage of data storage locations labeled in the step of labeling is based upon the calculated second percentage of total device bandwidth to allocate to the session of data communication.

7. (Original) The method of claim 6, wherein the step of calculating and storing, stores the calculated second percentage in a resource allocation table as a replacement for the calculated first percentage; and

wherein the resource allocation table is independently accessible by the step of labeling and the step of dynamically adjusting, so as to allow the step of dynamically adjusting to alter the calculated first percentage in the resource allocation table without disrupting the step of labeling, thus allowing the first bandwidth reservation in the device to be adjusted without effecting operation of the step of transporting.

8. (Original) The method of claim 2 wherein the step of calculating includes the steps of:

obtaining a current measurement of data communications device data storage locations available for data storage and a current bandwidth utilization rate; and

computing an amount of bandwidth to reserve for the session of data communication based on the current bandwidth utilization rate and on the current measurement of data communication device data storage locations available for data storage.

9. (Previously Amended) The method of claim 1 wherein the step of dynamically adjusting the first bandwidth reservation to produce a second bandwidth reservation includes the steps of:

accepting a bandwidth reservation request indicating a specific amount of bandwidth to reserve for the session of data communication;

calculating and storing a percentage of total device bandwidth to allocate to the session of data communication based upon the bandwidth reservation request; and

labeling, with an identity of the session of data communication, a percentage of available data communication device data storage locations used to store application data transported through the data communications device, wherein the percentage labeled is based upon the calculated percentage of total device bandwidth to allocate to the session of data communication.

10. (Original) The method of claim 9 wherein the step of calculating and storing, stores the calculated percentage in a resource allocation table which is independently accessible by the step of labeling, so as to allow the step of dynamically adjusting to alter the calculated percentage in the resource allocation table without disrupting the step of labeling, thus producing the second bandwidth reservation in the device without effecting operation of the step of transporting.

11. (Original) The method of claim 1 wherein the step of transporting deposits the data associated with the session of data communication into data storage locations having an identification associated with the session of data communication and does so independently of how the identification associated with the session of data communication is created.

12. (Original) The method of claim 11 wherein the step of transporting deposits the data associated with the session of data communication only into data storage locations having an identification associated with the session of data communication.

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